

Approved For Release 2001/08/02 : CIA-RDP78-02820A001100050001-3

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Memorandum

25X1A : The Files: [REDACTED]

EP 65-322
DATE: 28 October 1965

FROM : [REDACTED]

SUBJECT: Inspection Report No. 6 - HG-100 with [REDACTED]
[REDACTED]

25X1A9a
25X1A5a1
25X1A

1. Project Description:

The HG-100 is a tactical handcranked generator to be used in the operation of field portable electronic equipment and the charging of batteries. The unit is to supply 75 watts of average and 150 watts of peak power at 12 volts. The design goal is for a 10 lb., package of 230 cubic inches.

2. Contractual Information:

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- a. Initial Cost: [REDACTED]
- b. Request for Procurement Action: 27 July 1964
- c. Initiation Date: 2 January 1965
- d. Completion Date: 2 September 1965 Extension: 26 October 1965
- e. Deliverable Items: Twenty service test models, monthly reports, and final report. One prototype.

3. Date of Meeting: 21 October 1965

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4. Place of Meeting: [REDACTED]

5. Persons Attending:

Agency

Non-Agency

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[REDACTED]

[REDACTED]

25X1A5a1

6. Contractor's Performance:

- a. On schedule and expected to remain so: Yes
- b. Within obligated funds and expected to remain so: Yes
- c. Satisfactory technical progress: Yes

7. Project Status:



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Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

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EP 65-322

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25X1A7. Project Status:

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[REDACTED] is completing the HG-100 project on schedule to the day and within funding almost to the dollar. This is not a lucky coincidence but is the result of much effort on the part of project engineer, [REDACTED] and the personnel associated with him.

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Performance of the HG-100 is tabulated on the following "score sheet."

<u>Specification</u>	<u>Actual</u>
Weight 10.0	11.23 (could be significantly reduced in production by using a deep drawn aluminum housing)
Voltage regulation 12.0 - 10.8 from 0 - 12.5 amps	Flat at 11.8 - 11.4 over temperature range, 0 - 12.5 amps
Current regulation 1.9 - 1.7 amps	1.9 - 1.7 amps from 10.5 to 18.5 volts
Ripple 60 mV rms for modes 1, 2, 3	Within specification at all currents at room and high temperature, can go to 120 mV rms at low temperature (-22°F)
Ripple 50 mV rms for mode 4	Meets specification
Response time .5 milliseconds	Does not fall out of regulation
Efficiency	
60% at +70°F	60% (all units tested from 62% to 68%)
60% at +125°F	60%
50% at -22°F	60% (after short warm up efficiencies are typical for full cranking range)

2

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EP 65-322

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Specification

Actual

Life 500 hours

Gear system tested to 610 hours at constant 125 watt load. There are no other life critical components

Temperature

-22°F to +131°F
(operating)

OK

-65°F to +165°F
(exposure)

OK

Humidity 10 day

OK - No evidence of water intrusion

Water tight

OK

Vibration

OK

Acoustic Noise

57 db A scale
-54 db B scale

55 db on either scale
(field test)

Shock - Drop

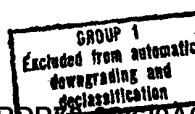
OK after 20 drops

Final acceptance will, of course, be based on the results of our own tests but there is little doubt that the unit will perform adequately.

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Distribution:

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Engineering Section CB/PD/OL
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